

WHAT IS CLAIMED IS:

1. A lens barrel mechanism comprising:  
a first optical unit;  
a second optical unit; and  
5 a bellows-shaped unit for performing light  
blocking and dust proof, said bellows-shaped unit  
being disposed between said first optical unit and  
said second optical unit so as to be expanded and  
contracted interlocking with relative movement in an  
10 optical axial direction between said first optical  
unit and said second optical unit;  
wherein one end of said bellows-shaped unit is  
fixed to said first optical unit, and the other end  
of said bellows-shaped unit is mounted to said second  
15 optical unit such that the other end of said bellows-  
shaped unit can be moved in the optical axial  
direction relative to said second optical unit, and  
the other end of said bellows-shaped unit can be  
regulated by different regulating portions of said  
20 second optical unit between cases where said bellows-  
shaped unit is contracted and where said bellows-  
shaped unit is expanded.

2. A lens barrel mechanism according to claim 1,  
25 wherein said second optical unit includes a cam pin  
which moves in the optical axial direction in  
engagement with and guided by a cam and a guide

groove provided in an outer cylinder, and said  
different regulating portions one of which extends  
toward an inner circumferential side of said second  
optical unit, and the other of which is a portion of  
5 said cam pin protruding toward the inner  
circumferential side of said second optical unit.

3. A lens barrel mechanism according to claim 1,  
wherein said first optical unit and said second  
10 optical unit are moved relative to each other in the  
optical axial direction when a focal length is  
changed, in the event that a condition is changed  
from a condition under which said first optical unit  
and said second optical unit are both contained in an  
15 outer cylinder to a condition under which the focal  
length is set to a wide-angle side, said first  
optical unit is moved rearward in the outer cylinder  
from a position of said contained condition to a  
position whereat the other end of said bellows-shaped  
20 unit impinges said regulating portion which is a  
portion of a cam pin protruding toward an inner  
circumferential side of said second optical unit,  
while said second optical unit is moved forward  
relative to the outer cylinder, and in the event that  
25 the focal length is set to a telephoto side, said  
second optical unit remains at the forward moved  
position, while said first optical unit is moved

forward to a position whereat the other end of said  
bellows-shaped member impinges said regulating  
portion which is a portion which extends toward the  
inner circumferential side of said second optical  
5 unit.

4. A camera characterized by a lens barrel  
mechanism recited in claim 1.

10 5. A lens barrel mechanism characterized in  
that a bellows-shaped unit for performing light  
blocking and dust proof is disposed between a first  
unit and a second unit which are movable relative to  
each other in an optical axial direction of a lens  
15 barrel, a first portion of said bellows-shaped unit  
is fixed to said first unit, a second portion of said  
bellows-shaped unit is mounted to said second unit  
such that said second portion can be moved in the  
optical axial direction relative to said second unit,  
20 and said second portion of said bellows-shaped unit  
can be regulated in the optical axial direction by  
different portions of said second unit between cases  
where said bellows-shaped unit is contracted and  
where said bellows-shaped unit is expanded,  
25 interlocking with the relative movement in the  
optical axial direction of said first unit and said  
second unit.

6. A lens barrel mechanism according to claim 5,  
wherein said second unit is an optical unit provided  
at a front end of said lens barrel, said regulating  
portion at the time of expansion is a portion of a  
5 cam pin protruding toward an inner circumferential  
side, and said cam pin supports and guides said  
optical unit in the optical axial direction.